IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the Application:

LISTING OF CLAIMS:

1. (Presently amended) A heat sink attachment mechanism comprising:

a fastener having a head portion and a shaft portion, the head portion configured to generate a stress on a heat sink to secure the heat sink with a circuit board component and the shaft portion having a flange substantially perpendicular to a long axis defined by the shaft portion, the flange configured to abut a surface of a circuit board carrying the circuit board component when the fastener secures the heat sink to the circuit board component; and

a compressible member in communication with the shaft portion of the fastener and configured to orient between the head portion and the heat sink, the compressible member having a diameter configured to expand when the head portion compresses the compressible member and generates the stress on the heat sink when the fastener secures the heat sink to the circuit board component, the compressible member comprising a compliant elastomeric material.

2. (Presently amended) The heat sink attachment mechanism of claim 1 wherein the shaft portion comprises a first shaft potion having a first diameter and a second shaft portion having a second diameter less than the first diameter of the first shaft portion, an interface between the first shaft potion and the second shaft portion defining the flange, the second shaft portion configured to couple with a side portion of a support member associated with the circuit board when the fastener secures the heat sink to the circuit board component.

3. (Original) The heat sink attachment mechanism of claim 2 wherein the first shaft potion of the fastener defines a length relative to a height of a circuit board assembly such that the length of the first shaft portion limits deformation of a solder joint between the circuit board component and the circuit board.

4. (Original) The heat sink attachment mechanism of claim 1 further comprising a trough portion defined by the shaft portion of the fastener, the trough portion extending along the shaft portion about, and substantially perpendicular to, the long axis of the shaft portion, the trough portion configured to secure the compressible member to the fastener.

5. (Original) The heat sink attachment mechanism of claim 1 wherein the diameter of the compressible member is greater than a diameter of the head portion of the fastener.

Claim 6. (Canceled)

7. (Original) The heat sink attachment mechanism of claim 1 wherein the compressible member comprises an electrically conductive material.

8. (Presently amended) A heat sink apparatus for cooling a circuit board component mounted to a circuit board, the heat sink apparatus comprising:

a heat sink; and

a heat sink attachment mechanism comprising:

a fastener having a head portion and a shaft portion, the head portion configured to generate a stress on the heat sink to secure the heat sink with a circuit board component and the shaft portion having a flange substantially perpendicular to a long axis defined by the shaft portion, the flange configured to abut a surface of a circuit board carrying the circuit

board component when the fastener secures the heat sink to the circuit board component; and

a compressible member in communication with the shaft portion of the fastener and configured to orient between the head portion and the heat sink, the compressible member having a diameter configured to expand when the head portion compresses the compressible member and generates the stress on the heat sink when the fastener secures the heat sink to the circuit board component, the compressible member comprising a compliant elastomeric material.

9. (Presently amended) The heat sink apparatus of claim 8 wherein the shaft portion comprises a first shaft potion having a first diameter and a second shaft portion having a second diameter less than the first diameter of the first shaft portion, an interface between the first shaft potion and the second shaft portion defining the flange, the second shaft portion configured to couple with a side portion of a support member associated with the circuit board when the fastener secures the heat sink to the circuit board component.

10. (Original) The heat sink apparatus of claim 9 wherein the first shaft potion of the fastener defines a length relative to a height of a circuit board assembly such the length of the first shaft portion limits deformation of a solder joint between the circuit board component and the circuit board.

11. (Original) The heat sink apparatus of claim 8 further comprising a trough portion defined by the shaft portion of the fastener, the trough portion extending along the shaft portion about, and substantially perpendicular to, the long axis of the shaft portion, the trough portion configured to secure the compressible member to the fastener.

12. (Original) The heat sink apparatus of claim 8 wherein the diameter of the compressible member is greater than a diameter of the head portion of the fastener.

Claim 13. (Canceled)

14. (Original) The heat sink apparatus of claim 8 wherein the compressible member comprises an electrically conductive material.

15. (Presently amended) A circuit board assembly comprising:

a circuit board and a circuit board component mounted to the circuit board;

a heat sink apparatus for cooling the circuit board component, the heat sink apparatus including:

a heat sink; and

a heat sink attachment mechanism comprising:

a fastener having a head portion and a shaft portion, the head portion configured to generate a stress on the heat sink to secure the heat sink with the circuit board component and the shaft portion having a flange substantially perpendicular to a long axis defined by the shaft portion, the flange configured to abut a surface of the circuit board carrying the circuit board component when the fastener secures the heat sink to the circuit board component; and

a compressible member in communication with the shaft portion of the fastener and configured to orient between the head portion and the heat sink, the compressible member having a diameter configured to expand when the head portion compresses the

compressible member and generates the stress on the heat sink when the fastener secures the heat sink to the circuit board component, the compressible member comprising a compliant elastomeric material.

16. (Presently amended) The circuit board assembly of claim 15 wherein the shaft portion comprises a first shaft potion having a first diameter and a second shaft portion having a second diameter less than the first diameter of the first shaft portion, an interface between the first shaft potion and the second shaft portion defining the flange, the second shaft portion configured to couple with a side portion of a support member associated with the circuit board when the fastener secures the heat sink to the circuit board component.

17. (Original) The circuit board assembly of claim 16 wherein the first shaft potion of the fastener defines a length relative to a height of a circuit board assembly such that the length of the first shaft portion limits deformation of a solder joint between the circuit board component and the circuit board.

18. (Original) The circuit board assembly of claim 15 further comprising a trough portion defined by the shaft portion of the fastener, the trough portion extending along the shaft portion about, and substantially perpendicular to, the long axis of the shaft portion, the trough portion configured to secure the compressible member to the fastener.

19. (Original) The circuit board assembly of claim 15 wherein the diameter of the compressible member is greater than a diameter of the head portion of the fastener.

Claim 20. (Canceled)

21. (Original) The circuit board assembly of claim 15 wherein the compressible member comprises an electrically conductive material.

22. (Original) A heat sink attachment mechanism comprising:

a fastening means having a head means and a shaft means, the head means to generate a stress on a heat sink to secure the heat sink with a circuit board component and the shaft means defining a long axis and having a flange substantially perpendicular to the long axis, the flange configured to abut a surface of a circuit board carrying the circuit board component when the fastening means secures the heat sink to the circuit board component; and

a compressible means in communication with the shaft means of the fastening means and configured to orient between the head means and the heat sink, the compressible means having a diameter configured for expanding when the head means compresses the compressible means and generates the stress on the heat when the fastening means secures the heat sink to the circuit board component.

23. (Presently amended) A method for assembling a circuit board assembly comprising:

placing a heat sink in communication with a circuit board component, the circuit board component coupled to a circuit board;

securing the heat sink to the circuit board component using a heat sink attachment mechanism, the heat sink attachment mechanism having a fastener having a head portion and a shaft portion, the shaft portion defining a long axis and having a flange substantially perpendicular to the long axis of the shaft portion and the heat sink attachment mechanism having a compressible member in communication with the shaft portion, the head portion, and the heat sink;

causing the flange of the shaft portion to abut a surface of the circuit board; and

causing the head portion to compress the compressible member of the heat sink attachment mechanism and expand an outer diameter of the compressible member, the compressible member comprising a compliant elastomeric material.

24. (Presently amended) The method of claim 23, further comprising:

engaging part of ~~coupling a second~~ the shaft portion of the fastener ~~to~~ with a circuit board support mount, the shaft portion defining a first shaft potion having a first diameter and a second shaft portion having a second diameter less than the first diameter of the first shaft portion, an interface between the first shaft potion and the second shaft portion defining the flange.

25. (Original) The method of claim 23 comprising inserting the compressible member within a trough portion defined by the shaft portion of the fastener, the trough portion extending along the shaft portion about, and substantially perpendicular to, the long axis of the shaft portion, to secure the compressible member to the fastener.

26. (Original) A heat sink attachment mechanism comprising:

a fastener having a head portion, an intermediate portion, and a securing portion, the head portion configured to generate a stress on a heat sink to secure the heat sink with a circuit board component, the intermediate portion having a flange substantially perpendicular to a long axis defined by the shaft portion, the flange configured to abut a surface of a circuit board carrying the circuit board component, and the securing portion configured to secure the circuit board to a support mount when the fastener secures the heat sink to the circuit board component; and

a compliant o-ring in communication with the shaft portion of the fastener and configured to orient between the head portion and the heat sink, the compliant o-ring having a diameter configured to expand when the head portion

compresses the compressible member and generates the stress on the heat sink when the fastener secures the heat sink to the circuit board component.

27. (New) The heat sink attachment mechanism of claim 1 wherein the elastomeric material defines an o-ring structure which is configured to retain the compressible member onto a side of the shaft portion of the fastener.

28. (New) The heat sink attachment mechanism of claim 27 wherein a cross-section of the o-ring structure is configured to substantially flatten in response to compression due to fastening of the heat sink to the circuit board component by the heat sink attachment mechanism.

29. (New) The heat sink apparatus of claim 8 wherein the elastomeric material defines an o-ring structure which is configured to retain the compressible member onto a side of the shaft portion of the fastener.

30. (New) The heat sink apparatus of claim 29 wherein a cross-section of the o-ring structure is configured to substantially flatten in response to compression due to fastening of the heat sink to the circuit board component by the heat sink attachment mechanism.

31. (New) The circuit board assembly of claim 15 wherein the elastomeric material defines an o-ring structure which is configured to retain the compressible member onto a side of the shaft portion of the fastener.

32. (New) The circuit board assembly of claim 31 wherein a cross-section of the o-ring structure is configured to substantially flatten in response to compression due to fastening of the heat sink to the circuit board component by the heat sink attachment mechanism.

33. (New) The method of claim 23 wherein the elastomeric material defines an o-ring structure which is configured to retain the compressible member onto a side of the shaft portion of the fastener.

34. (New) The method of claim 33 wherein a cross-section of the o-ring structure is configured to substantially flatten in response to compression due to fastening of the heat sink to the circuit board component by the heat sink attachment mechanism.